

Notice of Allowability

Application No.

10/692,484

Examiner

Rip A. Lee

Applicant(s)

JEONG ET AL.

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-15 and 19.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 10-23-2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

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EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas D. Kohler on February 5, 2005.

Cancel claims 16-18.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: Claims 1-15 and 19 are allowed over the closest references, JP 2000-204207 to Enami *et al.*, U.S. Patent No. 6,812,285 and 6,506,495, both to Enami *et al.*, U.S. Patent No. 6,218,474 to Valligny *et al.*, and JP 10-287775 to Uchida *et al.*

The present invention of claims 1-15 is drawn to a propylene-based composition for powder slush molding comprising: 1-40 pw of a polypropylene, 10-50 pw of a styrene rubber, 10-50 pw of an ethylene- α -olefin copolymer rubber, 1-20 pw of a process oil, and 1-30 pw of a polypropylene wax with reference to 100 pw of the resin composition.

JP 2000-204207 discloses a thermoplastic powder slush molding composition comprising 20-80 pw of a polypropylene resin having a melt index of 20 g/10 min or more, 20-80 pw of a hydrogenated styrene-butadiene copolymer rubber, 5-200 pw of process oil, 20-250 pw of an ethylene-octene copolymer, 2-20 wt % of an adhesion modifier, and 0.1-5 wt % of an internal release agent. According to the text, the internal release agent is a polysiloxane. The patent does not teach or fairly suggest the use of polypropylene wax as internal release agent. Therefore, it would not have been obvious to one having ordinary skill in the art to modify the invention of the prior art in order to arrive at the subject matter of the present claims.

Enami *et al.* teaches a thermoplastic composition for powder slush molding comprising 100 parts by weight of a polypropylene resin, 20-500 pw of a hydrogenated block copolymer containing vinyl aromatic hydrocarbon, 5-250 pw of an ethylene/ α -olefin copolymer rubber, and 5-200 pw of a process oil. The patent does not teach or

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fairly suggest the use of polypropylene wax as a component. Therefore, it would not have been obvious to one having ordinary skill in the art to modify the invention of the prior art in order to arrive at the subject matter of the present claims.

The prior art of Valligny *et al.* relates to powdered thermoplastic compositions comprised of 5-95 pw of a matrix containing at least one polymer having at least 50 mole % of propylene, 5-90 pw of at least one polymer having at least 50 mole % of ethylene, 0-6 pw of an internal release agent. A representative thermoplastic blend contains 70 pw of polypropylene, 20 pw of crosslinked polypropylene/EPDM, and 10 pw of ethylene-octene copolymer rubber. According to the inventors, one such internal release agent is polypropylene wax, *inter alia*. The reference does not teach use of mineral (process oil) because the objective is to produce mineral oil free thermoplastic powders. Therefore, one having ordinary skill in the art would not have found it obvious to use process oils to modify the teachings of Valligny *et al.* in order to arrive at the subject matter of the present invention.

Uchida *et al.* discloses a composition comprised of 5-90 pw of a polypropylene, 5-100 pw of a hydrogenated vinyl aromatic/conjugated diene rubber, 100 pw of an ethylene- α -olefin copolymer, and 52.5-250 pw of a process oil. The patent does not teach or fairly suggest the use of polypropylene wax as a component. Therefore, it would not have been obvious to one having ordinary skill in the art to modify the invention of the prior art in order to arrive at the subject matter of the present claims.

U.S. 2004/0010083 to Jeong *et al.* is a corresponding publication by a common inventors. The text discloses a thermoplastic composition for powder slush molding

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comprised of 100 pw of a polypropylene resin, 50-200 pw of a hydrogenated styrene/butadiene or SE/BS copolymer, 50-200 pw of ethylene-octene copolymer. This is essentially the same as the base resin of the instant claims. There are no claims drawn to use of process oils or polypropylene wax. Therefore, the present claims are not obvious over the claims of the copending application.

The invention of claim 19 is drawn to a propylene-based composition for powder slush molding comprising: 1-40 pw of a polypropylene, 20-40 pw of a styrene rubber, 10-50 pw of an ethylene- α -olefin copolymer rubber, 5-15 pw of a process oil, and 5-25 pw of a polyolefin wax selected from the group consisting of propylene homopolymer wax, propylene-ethylene copolymer wax, propylene-ethylene-butene terpolymer wax, polyethylene wax, or mixtures thereof. Each component has specific properties which are recited in the claim.

Tables 1-4 of U.S. Patent No. 6,812,285 to Enami *et al.* reveals compositions that contain minor amounts of linear low density polyethylene. The reference does not disclose the purpose of this resin, and since there is no teaching as to the properties of such material, it is not obvious that the LLDPE is a polyethylene wax. Furthermore, all compositions contain more than 40 pw of propylene resin. Finally, the reference does not teach or fairly suggest use of the specific styrene rubber, ethylene- α -olefin copolymer rubber, and process oil recited in the present claims. Based on these facts, it is deemed that the reference does not teach the subject matter of the present claim and that one of ordinary skill in the art would not have found it obvious to arrive at the present invention based on the teachings of Enami *et al.*

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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February 6, 2005



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